

## Marine Plants & Algae

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Extensive submerged seagrass beds occur in Mosquito Lagoon. They are the basis of the estuarine ecosystem and considered the key indicator of the lagoon's health. Seagrass beds help to keep the waters clear of sediments by slowing down currents and taking particles out of suspension. They also provide foraging and hiding areas for many species of juvenile fish and habitat for benthic invertebrates.

The seagrass species found in Mosquito Lagoon are primarily shoal grass (*Halodule wrightii*), widgeon grass (*Ruppia maritima*) and manatee grass (*Syringodium filiforme*). Although not showy, they are angiosperms (flowering plants) with roots and vascular systems to transport nutrients and water throughout the plant. They reproduce both sexually by seeds and asexually by vegetative propagation. Factors that influence seagrass growth and distribution include water depth, water clarity and light availability, substrate, nutrient levels, salinity, temperature, runoff, and human activities. Pollutants or algal blooms that decrease penetration of sunlight into the water have a significant impact on the survival of seagrass beds. Because of the importance of seagrass beds to the ecosystem, several agencies monitor seagrass distribution in Mosquito Lagoon using aerial photography and field transects.

Macroalgae are also abundant in Mosquito Lagoon and in fact exceed seagrass biomass in many places. They are more primitive than seagrass and reproduce through a variety of strategies that do not involve seed production. Macroalgae can be epiphytic (growing on the seagrass blades), freestanding, or in drift form which enhances distribution. Epiphytic algae will sometimes overgrow seagrass blades, reducing seagrass productivity and increasing chances of dislodgement. Two common attached species are the green finger-like *Codium decorticatum* and yellow wire-like *Caulerpa*. Common drift species include *Gracilaria armata*, *Enteromorpha compressa*, *Cladophora* sp., *Acanthophora spicifera*, *Hypnea cervicornis* and *Spyridia filamentosa*.